

The Federation of Korean Industries Headquarters Building

Seoul, Korea

Owner

The Federation of Korean Industries (FKI)

Architect

Adrian Smith + Gordon Gill Architecture

Completion Date

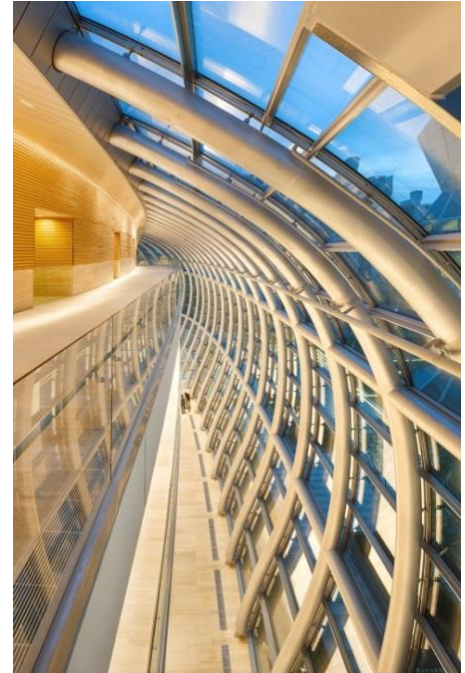
2013

Total Area

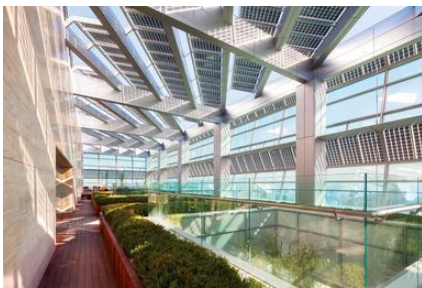
Tower: 170,104 m²
Conference Center: 6,000 m²

Building Height

244 meters



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Thornton Tomasetti provided structural design and building skin services for a 244-meter-tall, 50-story commercial tower and an adjacent four-story glass and steel structure that serve as FKI's new headquarters. The 170,104-gross-square-meter tower, built using top-down construction methods, encompasses 111,000 square meters above grade and five levels of below-grade parking and support spaces. The neighboring free-form glass enclosure houses a 6,000-square-meter conference center.

The tower's structural system consists of a reinforced concrete core with steel outrigger and perimeter belt trusses. To promote sustainability and create a distinct architectural presence, the structure features a furrowed exterior wall that integrates vision, spandrel and photovoltaic panels. The unique exterior skin is a key factor in disrupting the organization of wind vortices for the relatively prismatic tower geometry. Thornton Tomasetti's scope included design and engineering peer review to the architectural team for the tower's rippled façade.

Thornton Tomasetti worked closely with the architect to detail the glass enclosure's glazing system utilizing Gehry Technologies' Digital Project. Parametric modeling was employed to develop the geometry for panelization of the curved exterior of the structure.

All design documents were generated and delivered via Revit and Tekla.